

SAFETY AND HEALTH PROTOCOL FOR FIELD ACTIVITIES

Environmental Protection Agency
Research Triangle Park, North Carolina

PURPOSE

To ensure adequate review of proposed occupational safety and health precautions, procedures and techniques for use involving hazardous agents, equipment or operations in field activities. This review process applies to all "field activities" meaning EPA program activities that are conducted by EPA employees outside of EPA administered facilities. As the principal investigator you should be most cognizant of the specific or potential hazards associated with agents upon which you are conducting investigations.

A hazardous agent is defined as: (1) one that has an LD_{50} (oral, rat) < 50 mg/kg body weight, an inhalation LC_{50} toxicity (rat) of ≤ 2 mg/liter, or a dermal LD_{50} toxicity (rabbit) of < 200 mg/kg (2) one that causes carcinogenic, teratogenic or mutagenic effects; (3) any infectious biological agent; or (4) any explosive or violently reactive agent, or (5) one that causes an irreversible illness.

References useful in determining LD_{50} and carcinogenic, teratogenic or mutagenic effects are the Registry of Toxic Effects of Chemical Substances (NIOSH Publication), and the International Agency for Research of Cancer (IARC) publications. The above references are available in the library and the Safety Office. A reference useful in determining if an agent is explosive or violently reactive is Dangerous Properties of Industrial Materials (Sax). A copy of this is available in the Safety Office.

Hazardous equipment/facility is defined as: one which presents a potential physical hazard (e.g. excess heat, electrical shock, steam, explosion, etc.) to employees.

Title of Study or Project: An epidemiologic health study of manganese (Mn) exposure in East Liverpool, Ohio

Name of Site and Site Location: East Liverpool Motor Lodge, East Liverpool, OH

Duration of Field Activity: November 3- November 6, 2011

Principal Investigator: Danella T. Lobdell

Location: Office ORD/EPHD Lab NHEERL

Phone: Office 919-843-4434 Lab NHEERL

Division/Branch: EPHD

Principal Investigator (Signature & Date)
(Principal Investigator must be an EPA employee.)

APPROVALS

Branch Chief Timothy J. Wade _____ Date _____

Signature _____

Division Director Wayne Cascio _____ Date _____

Signature _____

Panel _____ Date _____

**PART I. PERSONNEL POTENTIALLY EXPOSED TO HAZARDS DURING FIELD
ACTIVITIES**

A. Personnel

Personnel Authorized to Perform Field Work: Each authorized person must complete and sign a Personnel Qualification form.

Name	Signature	*Medically monitored	*Field Safety Trained		SHEM	
			24 Hour	Refresher	Initial	Refresher
Danelle T. Lobdell		NO		2 / 2011	10 / 2001	
Mike Ray						

Are all personnel working with these study participants in the Center's Medical Monitoring Program?

Yes _____ No ☒ X _____. If no, explain.

Those persons not medically monitored are not exposed to hazardous chemicals.

Have all personnel working on this study successfully completed the required initial Field Activity Safety Training and/or Annual Refresher Training?

Yes ☒ X ____ No _____. If no, explain.

B. Location(s) where work will be conducted (include site name and address).

Include a map if the site is in a remote location.

2340 Dresden Ave.
East Liverpool, OH 43920

C. Contact personnel representing the site (include name, title and phone number).

Greg Stein
Ohio Department of Health
Columbus, OH
614-995-7017

D. Brief description of study (Research or Monitoring Protocol should be attached if applicable).

This project is a cross-sectional study examining air Mn exposure and neurologic health effects. The researchers are only on site as observers and will not be collecting data. The site is at a local hotel central to where study participants live and can easily access for study protocol. The total study is for 4 days November 3-6, 2011. Health and clinical data as well as biological samples will be collected.

E. Describe in detail all potentially hazardous operations and duration.

1. Identify physical hazards (equipment, processes, electrical systems).
US EPA staff will not be operating any equipment.

A room designated for the collection of biologic samples (blood, toenails and hair) will contain centrifuge and sample collection materials. The contractor will be collecting and processing the samples. The US EPA observer should have no contact with them.

2. Identify chemical hazards (those that exist at the site and those EPA will transport to the site). N/A. There will be none used.
3. Identify environmental concerns (terrain, weather, adjacent sites).

Air Quality

We are researching this town because historically there have been the highest air Mn concentrations ever recorded from the ambient air monitoring system in the U.S. However, Ohio EPA and US EPA have worked with the industry responsible and levels have decreased considerably. The researcher will be indoors for most of the study time period and will be located a great distance from the primary high exposure areas in the town.

4. Identify any locations on the site that EPA personnel are restricted from entering.

N/A no areas are restricted.

F. Provide the following information for any hazardous agent that will be taken into the field by EPA personnel.

N/A

Hazardous Agent:

1. Common name:N/A

2. Chemical name (and/or scientific name):N/A

3. Quantity (To be taken into the field)N/A

4. Condition/method of storage (in transport and when in use in the field):N/A

5. Physical/chemical properties (form, solubility, volatility, vapor pressure, stability, flash point, reactivity).N/A

6. Are special handling procedures required (e.g. in transport and in use in the field)?N/A

G. Toxicity of Materials to be used

1. LD₅₀ or other (carcinogen, etc.): (attach copy of reference)N/A

2. Acute symptoms:N/A

3. Chronic symptoms:N/A

4. Are antidotes readily available for emergency use (if needed), where and by whom?N/A

H. Personnel Protective Equipment required? Yes___ No X. What type?

I. Precautionary procedures to be used (e.g. controlled access, covered work surfaces, etc.). N/A

J. Hazardous Waste Disposal N/A

(Fill out the following information only if you are taking materials into the field and anticipate generating waste materials that must be returned to an EPA facility.)

Type of waste anticipated (exact chemical name and concentrations): N/A

Volume of waste: N/A

(Provide time period, for example : 1 Liter/week solvent waste)

Unused stock (to be disposed of at site or kept): N/A

K. Attach copy of Hazardous Material Data Sheet, or a copy of information found in NIOSH Registry of Toxic Effects of Chemical Substances. N/A

PART II EMERGENCY PROCEDURES

This information must be coordinated with representatives from the field site. This is referring to the emergency procedures dictated by the site personnel.

A. In the event of an accident or chemical spill:

1. Describe procedures in event of overt personnel exposure (inhalation, ingestion, inoculation):
N/A

2. Describe plans for containment to prevent spread of the agent from the immediate area, decontamination procedures and monitoring methods to assure decontamination.
N/A

3. Describe the procedures for emergency evacuation of the facility (include diagram).

Diagrams are attached for the.

In case of emergency evacuation, the researcher will follow the clearly marked "Exit" signs for

the facility.

B. In the event of a medical emergency:

1. Emergency phone number (Is 911 available or does facility have its own medical emergency number)? Yes
2. Is response by EMS available? Yes
3. First response hospital (Attach map of hospital location relative to site).

Hospital: East Liverpool City Hospital, 425 W. Fifth Street, East Liverpool, OH
43920 **See Attached**

Commented [DTL1]: Need to attach when I convert to PDF map of hospital to Motor Lodge.

4. Is hospital equipped to handle: See Table Below

East Liverpool, OH

Hospital nearest Study Site			Hospital nearest Hotel		
East Liverpool City Hospital (see driving directions below) 425 W. Fifth Street, East Liverpool, OH 43920 (330) 385-7200	Yes	No	SAME	Yes	No
	Emergency 911 Available	Y		Y	
	EMS Response Available	Y		Y	
	Is hospital equipped to handle: (If no to any of the below, identify alternate hospital)				
Burns	Y			Y	

Chemical splashes	Y			Y	
Chemical Burns	Y			Y	
Severe Trauma	Y			Y	
Alternate Hospitals					

If the answer to any of the above is no, designate an alternate facility that can handle these injuries. Include the hospital name, address, phone number and location relative to the site.

C. Safety Checklist

Refer to the attached Safety Checklist and identify who will be responsible for completing this list. Once the project ends this checklist should be sent to the Safety Office (MD-50) to be incorporate into the Protocol File for this project.

Protocol Title: An epidemiologic health study of manganese (Mn) exposure in East
Liverpool, Ohio

Designate whether or not the following items have been completed or obtained for each participating employee

ITEMS	COMPLETE
Field Activity Training <i>(includes having current certificate or card)</i>	All persons on listed have current safety field training.
Medical Monitoring Program Participation	No one on list participates
Personnel Protective Equipment	N/A
Safety Glasses or Goggles	N/A
Safety Shoes/ Over Boots	N/A
Hard Hat	N/A
Respirator and Cartridges	N/A
Appropriate Gloves	N/A
Chemical Protective Clothing	N/A
Accident Report Forms (Injury, Vehicle)	Located in Travel Portfolio
Health & Safety Protocol if Required	Located in Travel Portfolio
Government Vehicle To Be Taken? <i>(Does it contain the following items)</i>	NO
First Aid Kit	N/A
Fire Extinguisher	N/A
Other Supplies	N/A

Site Contact <i>(list name and phone number)</i>	Greg Stein Ohio Department of Health Columbus, OH 614-995-7017
Itinerary Left With Secretary at EPA	YES
Verification of Certifications <i>Signature of Safety Office Representative</i>	